



Contents Volume 144, 1998

Vol. 144, Nos. 1–2

Research Papers

Role of organic matter and sulphate-reducing bacteria for metal sulphide precipitation in the Bahloul Formation at the Bou Grine Zn/Pb deposit (Tunisia)	1
A. Bechtel, M. Pervaz and W. Püttmann	
Nb/Ta fractionation in a Cambrian arc/back arc system, New Zealand: source constraints and application of refined ICPMS techniques	23
C. Münker	
Thermal-neutron intensities in soils irradiated by fast neutrons from point sources	47
S.L. Shue, R.E. Faw and J.K. Shultz	
Strontium isotope geochemistry of anhydrites and calcite pseudomorphs after anhydrite from Palaeozoic formations in Belgium	63
L. Dejonghe, D. Demaiffe and D. Weis	
Precise and rapid determination of ^{238}U / ^{235}U and uranium concentration in soil samples using thermal ionisation mass spectrometry	73
R.N. Taylor, I.W. Croudace, P.E. Warwick and S.J. Dee	
Natural and anthropogenic schwertmannites from Towada-Hachimantai National Park, Honshu, Japan	81
C.W. Childs, K. Inoue and C. Mizota	
Surface chemistry and morphology of poorly crystalline iron sulfides precipitated in media containing sulfate-reducing bacteria	87
R.B. Herbert Jr., S.G. Benner, A.R. Pratt and D.W. Blowes	
Variations in REE and Sr-isotope chemistry of carbonate gangue, Castellanos Zn–Pb deposit, Cuba	97
J.F. Davies, S.A. Prevec, R.E. Whitehead and S.E. Jackson	
Absorption correction procedures for quantitative analysis of fluid inclusions using synchrotron radiation X-ray fluorescence	119
P. Philippot, B. Menez, P. Chevallier, F. Gibert, F. Legrand and P. Populus	
Assessment of the precision and accuracy of lead-isotope ratios measured by TIMS for geochemical applications: example of massive sulphide deposits (Rio Tinto, Spain)	135
C. Pomiès, A. Cocherie, C. Guerrot, E. Marcoux and J. Lancelot	

Isotope Geoscience Section

Isotopic spikes from tropical cyclones in surface waters: Opportunities in hydrology and paleoclimatology	151
J.R. Lawrence	

Vol. 144, Nos. 3–4

Research Papers

A comparison of the thermodynamics of metal adsorption onto two common bacteria	161
C.J. Daughney, J.B. Fein and N. Yee	
Oxygen isotope variations in Lau Basin lavas	177
C.G. Macpherson and D.P. Mattey	
The rapid heating, defocused beam technique: a CO_2 -laser-based method for highly precise and accurate determination of $\delta^{18}\text{O}$ values of quartz	195
M.J. Spicuzza, J.W. Valley, M.J. Kohn, J.P. Girard and A.M. Fouillac	
The significance of Himalayan rivers for silicate weathering rates: evidence from the Bhote Kosi tributary	205
N. Harris, M. Bickle, H. Chapman, I. Fairchild and J. Bunbury	

Li, B-rich Rhaetian metabauxite, Tuscany, Italy: reworking of older bauxites and igneous rocks M. Franceschelli, M. Puxeddu and I. Memmi	221
Rare-earth geochemistry of 'old' phosphorites and probability of syngenetic precipitation and accumulation of phosphate A.V. Ilyin	243
Precambrian ammonium biogeochemistry: a study of the Moine metasediments, Scotland S.R. Boyd and P. Philippot	257
In-situ osmium isotope ratio analyses of iridosmines by laser ablation–multiple collector–inductively coupled plasma mass spectrometry T. Hirata, M. Hattori and T. Tanaka	269
Geochemical and isotopic (Sr, Nd, Pb) evidence for plume–lithosphere interactions in the genesis of Grande Comore magmas (Indian Ocean) C. Deniel	281
SIMS analysis of U–Pb isotopes in monazite: matrix effects X.-K. Zhu, R.K. O’Nions and A.J. Gibb	305
Uranium-series radionuclide and element migration around the Sanerliu granite-hosted uranium deposit in southern China as a natural analogue for high-level radwaste repositories M.Z. Min, J.P. Zhai and C.Q. Fang	313

Isotope Geoscience Section

Short Communication

$^{226}\text{Ra}/\text{Ba}$ ratios for dating Holocene biogenic carbonates in the Southern Ocean: preliminary evidence from Antarctic coastal mollusc shells P.A. Berkman and T.-L. Ku	331
---	-----

Contents Volume 144, 1998	335
-------------------------------------	-----